AMENDMENTS TO THE CLAIMS

1.   A method for of evaluating a physical object, the method comprising: the steps of:

-       reading the instructions of a macro,

-       said macro suitable configured for use with measurement equipment, said measurement equipment being capable of performing measurements of a physical object,

-       said macro comprising instructions for said equipment to perform an evaluation of a physical object;

-       performing the instructions of said macro upon a numerical representation of the surface of said object so as to generate macro results; and

-       obtaining from the macro results of the macro, an evaluation of the physical object.

2.   Method according to claim 1 wherein said numerical representation of the surface is obtained by scanning part or all of the physical object using an object scanner.

3.   Method according to claims 1 and 2 1, wherein said numerical representation of the surface is any of point cloud data, triangulated mesh data, rendered surface data, or and polyline data.

4.   Method according to any of claims 1 to 3 claim 1, wherein said measurement equipment is a Coordinate Measuring Machine, CMM.

5.   Method according to any of claims 1 to 4 claim 1, wherein said macro comprises Dimensional Measuring Interface Standard, DMIS, commands.

6.   Method according to any of claims 1 to 5 claim 1, wherein said macro comprises CMM commands.

7.   Method according to any of claims 1 to 6 claim 1, whereby further comprising communicating said evaluation is communicated by part of a DMIS-measurement program or by using DMIS commands format.

8.   Method according to any of claims 1 to 7 claim 1, whereby further comprising communicating the said evaluation is communicated in the format of CMM measurement results.

9. Method according to ~~any of claims 1 to 8~~ claim 1, wherein the instructions of said macro that are performed relate to ~~the~~ measurement of data from the numerical representation of the surface.

10. Method according to ~~any of claims 1 to 9~~ claim 1, ~~wherein~~ further comprising performing translations through the surface of the object. ~~may be performed by the method.~~

11. Method according to ~~any of claims 1 to 10~~ claim 1, wherein ~~a measurement~~ the macro comprises instructions for performing a measurement comprising: ~~the steps of:~~

(a) determining ~~those~~ elements of data that numerically ~~representing~~ the object, and that correspond to the position on the physical object to be measured, without increasing the resolution by calculating the co-ordinates of any additional points;~~,~~

(b) calculating additional points by interpolation of the determined elements, ~~determined in step (a) additional points~~ wherein the additional points increase the resolution in ~~the~~ an area of ~~the~~ a position to be measured;~~, so increasing the resolution therein,~~

(c) calculating from the area of increased resolution ~~higher-resolution area determined in step (b)~~ a measurement of the object.

12. Method according to ~~any of claims 1 to 11~~ claim 1, wherein one or more instructions of said macro have been created by using said numerical representation of the physical object.

13. Method according to claim 12 wherein said instructions are recorded to the macro by way of a DMIS-measurement program or using the DMIS commands format.

14. Method according to ~~claims 12 or 13~~ claim 12, wherein said instructions are part of a measurement sequence generated by recording commands of a Coordinate Measuring Machine measurement program.

15. Method according to ~~any of claims 12 to 14~~ claim 12, ~~in which the~~ wherein said instructions are part of a measurement sequence in a Coordinate Measuring Machine measurement program.

16. Method according to ~~any of claims 1 to 15~~ claim 1, wherein said evaluation comprises the execution of steps on a computer in an automatic way without interaction with the user of said computer during the execution of ~~the~~ said steps.

17.   Method for virtually measuring an object using a cloud of points virtually representing ~~the~~ said object and calculating the value or values that ~~approximates~~ approximate the value or values that would result from the measurement of ~~the~~ said object by a measuring ·device.

18.   Method for virtually probing an object using a cloud of points virtually representing ~~the~~ said object and calculating or selecting the point that approximates the point that would result from the probing of a CMM on the said object.

19.   A ~~computer program stored on a~~ computer readable medium comprising instructions which, when executed, cause the computer to perform ~~capable of performing~~ the method according to claim 1.~~any of claims 1 to 18.~~

20.   A computer ~~program~~readable medium -according to claim 19, further ~~comprising the ability~~ comprising instructions which, when executed cause the computer to receive a numerical representation of the physical object from a remote computer.

21.   A computer ~~program~~ readable medium according to claim 20 wherein the numerical representation is received from the remote computer across any of the Internet, email, wireless link, public switched telephone network, ISDN, satellite link, or by physical transport of a computer readable storage medium holding said numerical representation.

22.   A computer ~~program~~ readable medium according to claim 21 wherein said computer readable storage medium ~~is~~ comprises any of optical disk, magnetic disk, optic-magnetic disk, magnetic tape.

23.   A computer ~~program~~readable medium according to ~~any of claims 19 to 22~~claim 19, further ~~the~~comprising ~~the ability~~instructions, which, when executed cause the computer to display a user interface on a web browser of a remote computer connected to the Internet, said interface allowing a user to send ~~a~~the numerical representation of the physical object over the Internet to a computer configured to perform said method.

24.   A computer ~~program~~readable medium according to ~~any of claims 19 to 23~~ claim 19, further comprising ~~the ability~~instructions, which, when executed, cause the computer to display a user interface on a web browser of a remote computer connected to the Internet, said interface allowing a user to send said macro over the Internet to a computer configured to perform said method.

25.   A computer ~~program~~ readable medium according to ~~any of claims 19 to 24~~ claim 19, further comprising instructions, which, when executed, cause the computer ~~the ability~~ to display a user interface on a web browser of a remote computer connected to the Internet, said interface allowing a user to send the title of said macro or an indication ~~thereof~~ of said macro over the Internet to ~~said~~ a computer configured to perform said method.

26.   A computer ~~program~~ readable medium according to ~~any of claims 19 to 25~~ claim 19, further comprising instructions, which, when executed, cause the computer ~~the ability~~ to display a user interface on a web browser of a remote computer connected to the Internet, said interface allowing a user to receive an evaluation report of a physical object generated by said method.

27.   A computer ~~program~~ readable medium according to ~~any of claims 19 to 26~~ claim 19, further comprising ~~the ability~~ instructions, which, when executed, cause the computer to display a pay-per-use interface on a web browser of a remote computer connected to the Internet, said pay-per-use interface ~~capable of~~ configured to perform one or more of the following:

(a)   requesting ~~and/or providing~~ a username and password to the remote computer user, so as to enable a user to access an account for using the method;~~;~~

(b)   requesting billing information of the remote computer user;~~;~~

(c)   indicating a billing amount to the remote computer user, the billing amount relating to the number of evaluations performed; and

(d)   providing a username and password to the remote computer user so as to enable a user to access an account for using the method.

28.   A device ~~capable of~~ configured to performing ~~a~~ the method claim 1, the device comprising: ~~of any of claims 1 to 18 comprising,~~

-    means for reading the instructions of a macro,

-    said macro ~~suitable~~ configured for use with measurement equipment, said measurement equipment being capable of performing measurements of a physical object,

-    said macro comprising instructions for said equipment to perform an evaluation of a physical object;~~,~~

-    means for performing the instructions of said macro upon a numerical representation of the surface of said object so as to generate macro results;~~;~~ and

-      means for obtaining from the ~~the~~ macro results ~~of the macro~~, an evaluation of the physical object.

29.   A device according to claim 28, ~~that is a piece of~~ wherein the device is integrated with measurement equipment, the measurement equipment being capable of performing measurements of a physical object.

30.   A ~~piece of measurement equipment~~ device according to claim 29, wherein said measurement equipment is a CMM.